

WHAT IS CLAIMED IS:

1. A color polymer dispersed liquid crystal display comprising:

5 a lower substrate;

an upper substrate formed on the lower substrate with a predetermined space therebetween;

color liquid crystal-polymer films formed by foaming polymer films mixed respectively with red, green and blue
10 pigments to form porous films of red, green and blue colors and then dropping and injecting a liquid crystal into droplets of the porous films under vacuum condition; and

two transparent liquid crystal driving electrodes, one disposed between the lower substrate and the PDLC films and
15 the other disposed between the PDLC films and the upper substrate.

2. The color polymer dispersed liquid crystal display according to claim 1, wherein said lower and upper substrates
20 are made of a glass substrate or a plastic film.

3. The color polymer dispersed liquid crystal display according to claim 1, wherein said upper substrate is made of an organic film.

4. The color polymer dispersed liquid crystal display according to claim 1, wherein said porous films have a thickness of 1 to 30 μm .

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5. The color polymer dispersed liquid crystal display according to claim 1, further comprising barriers in a stripe pattern on said lower substrate in order to divide colors.

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6. The color polymer dispersed liquid crystal display according to claim 5, wherein said barriers have a height of 1 to 30 μm .

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7. A method for manufacturing a color polymer dispersed liquid crystal display, comprising the steps of:

forming pixel electrodes on a lower substrate;

forming polymer films mixed respectively with red, green and blue pigments on the lower substrate including the pixel electrodes;

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forming porous films of red, green and blue colors by foaming the polymer films;

forming color liquid crystal-polymer films by dropping and injecting a liquid crystal into droplets of the porous films under vacuum condition; and

combining an upper substrate having a common electrode on the inside surface thereof with the lower substrate including the color liquid crystal-polymer films.

5 8. The method according to claim 7, further comprising a step of forming barriers for dividing colors after forming the pixel electrodes and before forming the polymer films mixed with pigments.

10 9. The method according to claim 7, wherein said polymer films are formed by a screen pattern printing or inkjet injecting method.

15 10. The method according to claim 7, wherein said polymer films are formed by mixing a transparent polymeric material selected from a group consisting of acryl, styrene and carbonate with pigments.

20 11. The method according to claim 7, wherein said polymer films are foamed by a method selected from mechanical stirring, use of a reaction generating gas or a foaming agent, removal of a soluble material and spraying.

12. The method according to claim 7, wherein said upper

substrate is made by sequentially forming a transparent electrode and an organic film after applying a protective film on said liquid crystal-polymer films.

- 5 13. The method according to claim 12, wherein said organic film is formed by a spin coating or printing method.